Before the FEDERAL COMMUNICATIONS COMMISSION Washington, DC, 20554

In the Matter of: Notice of Proposed Rulemaking NPRM-11708 and Docket 16-239 and the associated RM-11708, RM 11759, RM-11769

Amending Part 97 of the Commission's Rules and Regulations to Permit Greater Flexibility in Data Communications

To the commission:

SECTION ONE:

PETITION FOR RULEMAKING/ COMMENTS AND INFORMAL REQUEST IN THE NATURE OF RULEMAKING

COMES NOW the undersigned Petitioner, Janis A. Carson, who pursuant to Section 1.401 of the Commission's Rules (47 CFR sec. 1.401) petitions the Commission to issue a Notice of Proposed Rulemaking (NPRM) - or alternatively, who pursuant to Sections 1.41 of the Commission's Rules (47 CFR Sec. 1.41) informally requests the Commission to take up and decide, sua sponte, to issue a NPRM, the undertaking of which is to modify Part 97 or the Commission's Rules and Regulations over the Amateur Radio and Amateur Satellite Services to POSSIBLY CONSOLIDATE INTO ONE OMNIBUS RULING AND RESOLVE PROBLEMS AND DISCREPANCIES with the current 3 filings, as will be explained below.

In support hereof, as and for good cause herefor, Petitioner states the following:

- 1. Petitioner is a United States Citizen who has been licensed since 1959 and is currently licensed as an Extra Class by the Commission in the Amateur Radio Service, accordingly, the Petitioner has standing. Petitioner has filed other comments on this and related rulemakings, and wishes to reply or initiate a new proposed rulemaking to simplify the various existing issues and move toward a reasonable resolution of the issues.
- 2. This Petition can be deemed an Informal Request or vice versa; accordingly, if the Commission prefers, reference to "Petition" also includes "Informal Request" and "Petitioner" also includes "Requestor". Concurrently, if it would expedite consideration hearof, rather than treating this document as a Petition for Rulemaking, the Commission may consider it as an Informal Request and proceed, sua sponte, as if originally couched in such language.
- 3. Petitioner has gathered a wide array of "generally applicable standards" as set forth in IARU international amateur radio band plans, as well as US

band plans, and the original ARRL petitioner's source document proposing the current rulemaking petitions embodied in RM-11708 and RM11759. The source material is available from the original authors from links shown in the REFERENCES section at the end of this document, so that they can be verified from the source documents if you so choose. This is to ensure that all statements in this filing are factual and true, and can be verified from external sources, and not presented as mere hearsay.

4. FCC has stated in paragraph 12 of WT 16-239 as part of NPRM-11708:

"While we tentatively conclude that a specific bandwidth limitation for RTTY and data emissions in the MF/HF bands is not necessary, we nonetheless request comment on whether we should establish emission bandwidth standards for amateur service MF/HF RTTY and data emissions. Commenters favoring such action should address what the maximum bandwidth should be, the basis for the particular limitation the commenter proposes, and whether the limit should apply across the bands or only in particular subbands. Commenters should explain the grounds for departing from the generally applicable standards."

MY PROPOSAL ADDRESSES THAT EXACT STATEMENT IN THE FILING.

FCC PROPOSES TO ELIMINATE THE OBSOLETE BAUD RATE LIMIT; I AGREE THAT THIS INDIRECT MEANS OF REGULATING BANDWIDTH IS OBSOLETE. I AGREE THAT AN ARRL ARBITRARY 2.8 KHZ LIMIT WOULD AGAIN ONLY BE PLANNED OBSOLESCENCE, AND ONLY RESULT IN FURTHER FCC TIME AND EFFORT LATER AS NEW MODES EVOLVE. HOWEVER, WITHOUT SOME LIMITS ON WHERE THIS NEW WIDE BAND DATA CAN BE LOCATED, EQUALLY EXPENSIVE INTERFERENCE ENFORCEMENT ACTIONS WILL CERTAINLY RESULT.

MY PROPOSAL AND PETITION EFFECTIVELY DRAWS TOGETHER THREE HIGHLY CONTENTIOUS PROCEEDINGS, NPRM-11708, RM-11759, and 11769, TO TREAT THE ENTIRE GROUP AS ONE PACKAGE OR HF ISSUES, AND EFFICIENTLY DISPOSE OF ALL OF THE ASSOCIATED ISSUES AT ONE TIME. FCC HAS ONLY 2 ALTERNATIVES: REGULATE MAXIMUM DATA BY BANDWIDTH, OR REGULATE IT BY FREQUENCY ALLOCATION. TO DO OTHERWISE IS CHAOS. DON'T PROCRASTINATE, REGULATE!

IT INCLUDES A DETAILED BAND PLAN FOR EACH OF THE HF BANDS, WITH A BAND SEGMENT SET ASIDE FOR NARROW BAND EMISSIONS, WHILE ALLOWING THE NEW PROPOSED FCC ELIMINATION OF ALL BAND WIDTH SPECIFICATIONS FOR WHAT IS STYLED "WIDE BAND DATA" IN ITS OWN SET ASIDE SEGMENTS. THIS WOULD CATERGORICALLY HAVE NO IMPACT ON VOICE/IMAGE SEGMENTS OR THEIR CURRENT BAND WIDTH, EMISSION DESIGNATORS, OR REGULATIONS. THIS WOULD PROVIDE A SOLUTION THAT ALL PARTIES COULD LIVE WITH, ENDING THE FCC HAVING TO ARBITRATE THE CURRENT CONTENTIONS OF ALL THESE FILINGS. IT IS NOT JUST A GENERAL REQUEST FOR APPROXIMATELY 50 OR 100 KHZ SET ASIDE FOR NARROW BAND MODES, however meritorious that concept may be. ALSO, IT AGREES IN MOST PART WITH ARRL CONCEPTS, MAKING IT DIFFICULT TO REJECT THIS PETITION AND COMMENT.

It does not leave the door open to "voluntary band plans" or future disputes, since it segregates the new wide band activity and allows all forms of experimental emissions to flourish in their own band segment without any band width or emission limitations at all, as the FCC desires to promote innovation. The only restriction would be that any such emissions would have to qualify under the existing "disclosed code" rule. One further requirement on the DATA emissions would be the mandatory ten minute identification be sent by a means intelligible to those not possessing the proprietary hardware or software to decode it. Further, such means of decoding proprietary emissions should be furnished in sufficient quantity to the FCC and its designees, for the purpose of monitoring such transmissions to ensure compliance with part 97 rules and other legal requirements. It is not an "unreasonably burdensome requirement" to follow "generally applicable standards" as all other users of the HF amateur spectrum do.

SECTION TWO:

SUMMARY and OUTLINE OF PROPOSAL TOPICS which is to serve as a TABLE OF CONTENTS (Details of topics to presented later)

- 1. FCC NPRM-11708 WT-16-239 ABOLISHES BAUD RATE LIMITS, WITH NO BAND WIDTH RESTRICTION; IT DOES NOT ACCORD WITH "GENERALLY APPLICABLE STANDARDS" OR THE INTENT OF THE ORIGINAL ARRL PETITION FOR RULEMAKING INCLUDING BAND WIDTH LIMITS. HOWEVER, WITH APPROPRIATE BAND PLANS (PRESENTED HERE), IT COULD WORK. Pages 4, 5, 6.
- 2. FCC NPRM-11708 WT-16-239 DOES NOT ALIGN US AMATEUR BANDS WITH INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS" FOR LOCATION OF AREAS OF CERTAIN EMISSIONS WITHIN THOSE BANDS, CREATING CONFLICT WITH IARU RULES FOLLOWED BY 160 COUNTRIES REPRESENTED BY IARU. Pages 7 through 18, detailed graphics.

NOTE: PAGE 18 HAS AN IMPORTANT REFERENCE TO SMALL BUSINESS IMPLICATIONS WHICH SHOULD NOT BE OVERLOOKED.

- 3. FCC NPRM-11708 WT-16-239 CURRENTLY IGNORES CONFLICT RESULTING FROM OPERATION OF AUTOMATICALLY CONTROLLED DATA STATIONS AND "AUTO RESPONDING STATIONS", STYLED HEREIN AS "ROBOTS"; IF MY PETITION AND FILING IS ADOPTED, THAT WILL BE CONTAINED WITHIN THE NEWLY ALLOCATED WIDE BAND DATA SEGMENTS, PROTECTING BOTH WIDE AND NARROW BAND DATA SIGNALS, WHETHER "ROBOT" OR "HUMAN" OPERATORS. Page 18 & 19
- 4. FCC RM-11759 PROPOSES TO CHANGE THE CW/DATA ALLOCATION ON 80 METERS TO 3.5 TO 3.65 MHz. I PROPOSE TO MODIFY THAT TO 3.5 TO 3.625, WHICH ALIGNS WITH IARU REGION 2 BAND PLANS, AND ESTABLISH A NEW "WIDE BAND DATA" SEGMENT IN THAT EXPANDED AREA OF 80 METERS. THIS IS A COMPROMISE POSITION WHICH IS THE ONLY CHANGE FOR VOICE/DATA, AND SIGNIFICANTLY LESS THAN PROPOSED IN THE WIDELY OPPOSED RM-11759. IT ALSO ALIGNS FREQUENCIES WITH "GENERALLY APPLICABLE STANDARDS" IN IARU REGION 2. Page 20
- 5. FCC NPRM-11708 WT-16-239 IGNORES 160 METER BAND PLAN IN IARU BAND PLANS; PART 97 NOW NEEDS TO INCLUDE A PLAN FOR 160 METERS TO HARMONIZE WITH IARU "GENERALLY APPLICABLE STANDARDS" AND PREVENT INTERFERENCE ALREADY SEEN IN OTHER BANDS. Page 20
- 6. FCC RM-11759, 11769 AND ARRL PROPOSES TO GRANT DATA PRIVILEGES ON HF BAND BELOW 28 MHZ TO EXISTING NOVICE AND TECHNICIAN LICENSEES; WHY THIS SHOULD NOT BE DONE. Page 20
- 7. FCC RM-11769 HAS BEEN WITHDRAWN BY THE AUTHOR EXCEPT FOR THE PROVISIONS APPLYING TO 6 AND 2 METER CW SEGMENTS. THIS IS "OFF TOPIC" FOR HF. I PETITION FOR DISMISSAL OF RM-11769 IN ITS ENTIRETY AS PART OF THIS OMNIBUS PETITION FOR RULEMAKING TO DISPOSE OF ALL RELATED RULINGS AND BRING THIS PROCEEDING TO AN END. WHEDBEE HAS THE OPTION TO INTRODUCE THE VHF PORTIONS OF HIS FILING LATER AS A NEW RULEMAKING, WITHOUT COMPLICATION OF THIS ALREADY OVERWHELMING HF WORK. Page 21

REFERENCED SOURCES USED IN THIS FILING, WITH WEB URLS. Page 21

CONCLUSION AND REQUEST FOR ADOPTION AND SIGNATURE Page 21

APPENDIX OF SUGGESTED WORDING FOR PART 97 TO CORRECT PROBLEMS OBSERVED UNDER CURRENT RULES, AND TO ADDRESS THE NEEDS OF THIS FILING. Page 22 & 23

SECTION 3: DETAILS AS CALLED FOR SUMMARY AND TABLE OF CONTENTS

1. FCC NPRM-11708 WT-16-239 ABOLISHES BAUD RATE LIMITS, WITH NO BAND WIDTH RESTRICTION; DOES NOT ACCORD WITH "GENERALLY APPLICABLE STANDARDS" OR THE INTENT OF THE ORIGINAL ARRL PETITION FOR RULEMAKING INCLUDING BAND WIDTH LIMITS.

HOWEVER, WITH APPROPRIATE BAND PLANS TO SEPARATE INCOMPATIBLE DATA MODES, IT COULD WORK WITH NO BAND WIDTH LIMITS ON WIDE BAND DATA AS LONG AS THEY ARE CONTAINED WITHIN THEIR FCC ASSIGNED SEGMENT.

IT IS CURRENT FCC PRACTICE AND "GENERALLY APPLICABLE STANDARDS" TO SEPARATE INCOMPATIBLE MODES SUCH AS VOICE/IMAGE AND CW/DATA, to prevent interference and regulatory actions and to enforce appropriate band use. Separating the narrow band CW/DATA from the NEW WIDE BAND DATA is exactly the same concept, and constitutes "generally applicable standards" for good technical reasons.

The ARRL, which admittedly only represents at best 20% of the USA amateur community, had requested a maximum of 2.8 KHz bandwidth for wide band data, as deployed in only certain segments as specified in their HF BAND PLAN and "considerate operator's guide", which I plan to quote from and reference often later in the exact frequency assignments I propose. The ARRL has proposed to separate narrow and wide band data modes by a "voluntary band plan". FCC HAS IGNORED THE INTENT OF THAT RULEMAKING PETITION, AND THE SUBSEQUENT ARRL FILING BY THEIR LEGAL REPRESENTATIVE IN ITS REQUEST FOR A 2.8 KHZ MAXIMUM FOR WIDE BAND DATA. I QUOTE: "Those ARRL requests for RM-11708 state: "So, while there is some reasonable debate about the precise maximum bandwidth for data emissions at MF and HF, the number should not be much more or less than 2.8 kilohertz."

WHAT DOES THE REST OF THE WORLD DO ABOUT AMATEUR RADIO HF WIDE BAND DATA?

The IARU, which represents 160 member nations officially, has put forth a band plan recognized by the whole world's nations regulatory agencies. That qualifies as "generally applicable standards" and is referenced multiple times in this filing later in the detailed band plans. FIRST AND MOST IMPORTANTLY HERE ARE THE IARU "GENERALLY APPLICABLE STANDARDS" FOR MAXIMUM DATA BAND WIDTH AT HF:

REGION 2 (OUR USA REGION) RULES AUTHORIZE MAXIMUM DATA BANDWIDTHS OF 2700 HZ FOR ALL HF BANDS 160 THROUGH 10 METERS INCLUSIVE BELOW 29 MHZ.

http://www.iaru-r2.org/documents/explorer/files/Plan%20de%20bandas%20%7C%20Band-plan/R2%20Band%20Plan%202013.pdf

SEE CHARTS AT END OF THEIR DOCUMENT. CLIPS FROM THESE CHARTS APPEAR IN THIS PETITION AND FILING LATER IN THE DETAILED BAND PLAN SECTION.

Region 2 band plan further states:

"DM: Digital Modes: Any mode devoted to digital data communication restricted to the specified bandwidth and application of the segment (not for Digital Voice and Internet Voice Gateways). Examples: RTTY, PSK, FSK, etc"

"ACDS:

Automatic Controlled Data Stations, including Store and Forward stations (not Digital Voice Repeaters and Internet Voice Gateways)

In the case of digital beacons, it's recommended to insert CW on the usual schedule for non-machine recognition and use narrow BW as possible.

ACDS are allowed only when directly specified on the segment (except those on board satellites and spacecraft - able to transmit on specified satellites segments - and onboard near space stations see "NSS"). Unattended operations are restricted in HF (see "Unmanned/unattended transmitting stations").

Unmanned/unattended transmitting stations:

IARU member societies are requested to limit this activity on HF bands. It is recommended that any unmanned/unattended transmitting stations on HF shall be activated only under operator control except for beacons agreed with IARU beacon coordinator or specially licensed experimental stations."

TO SUMMARIZE FOR CLARITY: NO ACDS OUTSIDE OF ASSIGNED SEGMENT, REGARDLESS OF BANDWIDTH.

I submit that the IARU Region 2 Band Plan separates wide and narrow data modes into separate frequency assignments AND specifies a maximum of 2.7 KHz band width for wide data, and only 500 Hz for narrow data segments. That constitutes a pretty specific "GENERALLY APPLICABLE STANDARD" that FCC should observe as a good international neighbor by adopting an FCC rule in Part 97, not a voluntary band plan by a private agency to end this squabbling for territory.

IARU REGION 1 BAND PLAN HAS THE FOLLOWING "GENERALLY APPLICABLE STANDARDS":

IT DISTINGUISHES BETWEEN VARIOUS BANDWIDTHS IN ITS BAND PLANS ACCORDING TO CW AT 200 HZ, NARROW BAND DATA AT 500 HZ, AND WIDE BAND DATA AT 2700 HZ MAXIMUM. IN ABSOLUTELY NO CASE DOES IT PERMIT DATA AT A BAND WIDTH OF GREATER THAN 2.7 KHZ (2700 HZ). IT SEPARATES THE VARIOUS BANDWIDTHS BY FREQUENCY ASSIGNMENT. FCC should observe this as a good international neighbor by adopting an FCC rule in Part 97, not a voluntary band plan by a private agency (ARRL).

IARU REGION 3 BAND PLAN HAS THE FOLLOWING "GENERALLY APPLICABLE STANDARDS":

"NB: Narrow band modes including CW, RTTY, Packet and modes with similar bandwidth not exceeding 2 kHz."

TO CLARIFY: NO WIDE BAND DATA IS TO EXCEED 2 KHZ BANDWIDTH REGARDLESS OF FREQUENCIES OF OPERATION BELOW 29 MHZ.

IARU REGION 1, 2, AND 3 COVER THE ENTIRE PLANET EARTH AND INCLUDE 160 NATIONS AS MEMBERS. I SUBMIT THAT IS GOOD CONSENSUS. THE USA WOULD BE WISE TO AT LEAST CONSIDER ALIGNMENT WITH THESE "GENERALLY APPLICABLE STANDARDS".

SUMMARY OF POINT #1 AND MY CONCLUSIONS:

"Those ARRL requests for RM-11708 state: "So, while there is some reasonable debate about the precise maximum bandwidth for data emissions at MF and HF, the number should not be much more or less than 2.8 kilohertz."

FCC HAS IGNORED THE INTENT OF THAT RULEMAKING PETITION, AND THE SUBSEQUENT ARRL FILING BY THEIR LEGAL REPRESENTATIVE IN ITS REQUEST FOR A 2.8 KHZ MAXIMUM FOR WIDE BAND DATA.

ARRL UNWISELY WRITES A SPECIFICATION SUBJECT TO NEARLY IMMEDIATE OBSOLESCENCE AROUND A SINGLE SOURCE SUPPLIER DIGITAL MODE, NAMELY SCS PACTOR 4. THIS WOULD PROHIBIT FOR INSTANCE STANAG (BETTER IN THE EVENT OF A CIVIL EMERGENCY) AND OTHER POPULAR MILITARY MODES WHICH COULD PROVIDE IMPORTANT INTEROPERABILITY WITH NON AMATEUR STATIONS SUCH AS MARS (MILITARY AUXILIARY RADIO SERVICE). STANAG CAN FIT IN 3 KHZ. WHICH IS CORRECT, 2.8 KHZ OR 3 KHZ? I AGREE WITH FCC, WITH CONDITIONS.

FCC IS 100% CORRECT IN TRYING TO ESTABLISH AN ENVIRONMENT WHERE EMERGING DIGITAL MODES CAN FLOURISH WITHOUT AN ARBRITRARY BANDWIDTH LIMIT THAT KEEPS REQUIRING REVISION. NOTE THAT I THEREFORE DISAGREE WITH THE MAXIMUM ARRL PETITIONED LIMIT, IF FCC IS WILLING TO ESTABLISH BY STATUTE IN PART 97 RULES A SEPARATE SEGMENT OF THE HF BANDS WHERE THAT ACTIVITY IS CONFINED TO, SUBJECT TO CERTAIN CONDITIONS:

- I AGREE WITH THE FCC THAT NO BAND WIDTH LIMIT SHOULD BE PLACED ON EMERGING DATA EMISSIONS, AS LONG AS THEY ARE REQUIRED BY FCC REGULATION TO OBSERVE THE THREE FOLLOWING LIMITATIONS.
- 1. ALL EMISSIONS FROM "WIDE BAND DATA" SHALL FALL WITHIN THE ASSIGNED BAND SEGMENT ALLOCATED TO WIDE BAND DATA AS DETAILED IN THE FOLLOWING BAND PLANS IN THIS PETITION AND COMMENT FILING. THEY ARE RESPONSIBLE FOR RESOLVING THEIR OWN INTERFERENCE ISSUES AMONG THEMSELVES. TECHNOLOGY SHOULD SOLVE THIS.
- 2. ALL ACDS (AUTOMATICALLY CONTROLLED DATA STATIONS) AND ALL "AUTO RESPONDING STATIONS" SHALL OPERATE WITHIN THE "WIDE BAND DATA" FREQUENCY SEGMENT SPECIFIED IN THE PART 97 RULES, AS PROPOSED IN THE FOLLOWING BAND PLANS IN THIS PETITION AND COMMENT FILING. THEY SHALL BE DEEMED WIDE BAND, REGARDLESS OF THEIR ACTUAL TRANSMITTED BAND WIDTH, BECAUSE OF THEIR ADAPTIVE SOFTWARE WHICH OFTEN STARTS IN A NARROW BAND MODE, BUT AUTOMATICALLY ADJUSTS TO A WIDER BAND WIDTH DEPENDING ON PROPAGATION CONDITIONS. THIS SEPARATES "ROBOTS" FROM "HUMANS".
- 3. FCC should require all automatically controlled data stations including "auto-responding stations" and US licensed amateurs who operate systems off shore to list their frequencies, operating times, and control operator telephone number and email in a publicly accessible database. These stations should also be required to identify in CW once every ten minutes. This is the only way to assure offending interferers can be identified and action taken if needed. Hundreds of comments in this proceeding have demonstrated problems that have arisen from these auto-responding stations, and the lack of effective station identification that currently persists today. THERE IS COORDINATION OF 2 METER FM REPEATERS TO PREVENT INTERFERENCE. IT IS NOT BURDENSOME TO REQUIRE THE SAME OF HF ACDS DATA STORE AND FORWARD OPERATIONS. AMATEUR VHF VOICE REPEATERS IDENTIFY IN CW PERIODICALLY. MANY COMMERCIAL LAND MOBILE REPEATER SYSTEMS ALSO DO SO. HF is world wide, not local.

If you can devise some other form of ID method that is easily accessible to monitoring stations without the purchase of expensive software licenses or hardware equipment, it might be permissible to use that instead of CW, but such equipment or software certainly would have to be provided to the FCC or its designee to ensure compliance with legal requirements. I know of no such devices or software at this time. I would be pleased to support ANY effective alternative to CW ID, but we presently have none.

LACK OF IDENTIFICATION OR REGISTRATION OF STATIONS LOCATION AND CONTACT INFORMATION WHICH CLAIM A RIGHT TO A SPECIFIC FREQUENCY IN THE AMATEUR BANDS IS A RECIPE FOR REGULATORY CHAOS. FCC WILL FACE HIGH COSTS UNRAVELING THIS LATER BY ENFORCEMENT. The implications for HF interference are world wide, not local. Further, DANGER from drug smugglers or terrorists is ignored by these means of sending encoded data without effective monitoring by the government. SINCERELY, IS THE FCC PREPARED TO EXPLAIN THIS LATER IN AN EMBARRASSING CONGRESSIONAL HEARING?

SECTION 3: DETAILS AS CALLED FOR SUMMARY AND TABLE OF CONTENTS
2. FCC NPRM-11708 WT-16-239 DOES NOT ALIGN US AMATEUR BANDS WITH INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS" FOR LOCATION OF AREAS OF CERTAIN EMISSIONS WITHIN THOSE BANDS, CREATING CONFLICT WITH IARU RULES FOLLOWED BY 160 COUNTRIES REPRESENTED BY IARU.

THIS SECTION CONSISTS OF COMPARISONS OF VARIOUS IARU REGIONS, THE ORIGINAL SOURCE DOCUMENT THAT TRIGGERED ARRL PETITION FOR RULEMAKING, AND MY OWN RECOMMENDATIONS, FOR EACH AND EVERY HF BAND 160 THROUGH 10 INCLUSIVE. IT PRESENTS THAT INFORMATION IN VERY READABLE GRAPHIC FORM, INSTEAD OF EXTENSIVE CONFUSING TABLES.

160 METERS:

THERE IS NO USA BAND PLAN FOR 160 METERS. THE ARRL PETITION DID NOT REQUEST ONE. REGION 2 (USA INCLUDED IN THIS REGION):

160 METERS

Frequencies (kHz)	BW (Hz)	Mode	Applications and observations
1800-1810	500	DM	
1810-1830	200	cw	CW QRP Center of Activity 1812 kHz
1830-1840	200	cw	CW Priority for intercontinental operation (DX window)
1840-1850	2700	CW, SSB	SSB Priority for intercontinental operation (DX window)
1850-1999	2700	All modes	SSB QRP Center of Activity 1910 kHz
1998-1999	500	CW, DM	ACDS
1999-2000	200	cw	Beacons

PLEASE NOTE THAT ACDS IS LOCATED AT THE TOP END OF THE BAND, AWAY FROM WHERE THE DESIRABLE DX WINDOWS FOR CW AND SSB ARE LOCATED. I PETITION AND COMMENT ON NPRM-11708 WT-16-239 THAT WE ADOPT THIS BAND PLAN, SUBJECT TO OUR USA EMISSION DEFINITIONS (SSB AND AM STAY AS WE HAVE THEM DEFINED IN OUR EMISSION SPEC AND DESIGNATOR TABLES IN PART 97). CLARIFICATION: ANY ACDS NARROW BAND AND CONFINED TO 1998 - 1999 ONLY. NO WIDE BAND DATA AT ALL ON THIS BAND.

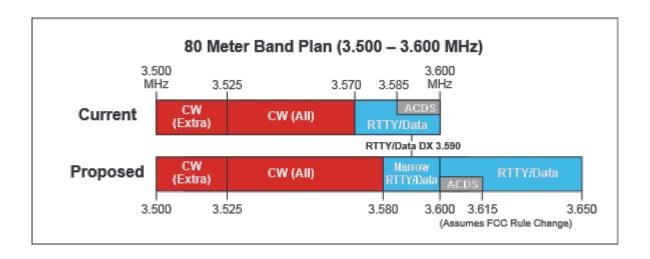
WHILE THERE IS NO SUBSTANTIAL ACDS OR WIDE BAND ACTIVITIES ON 160 METERS, THERE COULD BE, ANYWHERE ON THE BAND UNDER CURRENT RULES. INCORPORATING THIS BAND PLAN INTO OUR PART 97 LAW WOULD CONFORM TO "GENERALLY APPLICABLE STANDARDS". IF ONLY IN THE BEGINNING THE ACDS AND WIDE BAND SEGMENTS HAD BEEN LOCATED AT THE TOP OF THE OTHER USA AMATEUR BANDS, IT WOULD NOT HAVE COME TO LOCATE IN THE MOST DESIRABLE WEAK SIGNAL PORTION. BUT THAT IS TOO LATE TO FIX. PLEASE LET US CORRECT THIS MISTAKE AT LEAST FOR 160 METERS RIGHT AWAY.

SECTION 3: DETAILS AS CALLED FOR SUMMARY AND TABLE OF CONTENTS

2. FCC NPRM-11708 WT-16-239 DOES NOT ALIGN US AMATEUR BANDS WITH INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS" FOR LOCATION OF AREAS OF CERTAIN EMISSIONS WITHIN THOSE BANDS, CREATING CONFLICT WITH IARU RULES FOLLOWED BY 160 COUNTRIES REPRESENTED BY IARU - CONTINUED

80 METERS: THE USA BAND PLAN AND THE ARRL PETITIONED BAND PLAN ALLOCATIONS (RM-11759), SEPARATING CW, NARROW DATA, AND WIDE BAND DATA ARE SET FORTH IN:

http://www.arrl.org/files/file/About%20ARRL/Committee%20Reports/2015/January/SUMNER%20QS4.pdf



I PETITION AND REQUEST AND COMMENT THAT WE ADOPT (INTO PART 97 LAW) THIS PROPOSED BAND PLAN BY ARRL WITH THE FOLLOWING MODIFICATIONS:

THE REGION BETWEEN 3.57 AND 3.625 SHALL BE DESIGNATED AS THE ONLY AREA WHERE ACDS (ROBOTS) AND WIDE BAND DATA IS ALLOWED ON THE 80 METER BAND. THIS GIVES THOSE MODES NEARLY 50 KHZ, AN INCREASE TO NEARLY WHAT ARRL IS REQUESTING. RIGHT NOW, LOOKING AT THE UPPER (CURRENT) BAND PLAN, ALL OF RTTY DATA NARROW AND WIDE AND ACDS IS CONFINED TO A TOTAL OF ONLY 30 KHZ.

FROM 3.5 TO 3.57 MHZ WOULD BE ALLOTTED TO CW/DATA WITH A MAXIMUM BANDWIDTH OF 500 HZ, WITH ABSOLUTELY NO ACDS OF ANY KIND ALLOWED. NO ROBOTS, HUMANS ONLY. THIS IS NOT THE 100 KHZ THAT SOME ARE ASKING FOR. BUT A 70 KHZ SEGMENT THAT IS "HUMAN" ONLY, NO "ROBOTS" WOULD BE MUCH BETTER THAN THE CURRENT SITUATION. THE USUAL SET ASIDE AT 3.5 TO 3.525 FOR EXTRA CW/NARROW DATA WOULD APPLY.

NO ONE GETS EVERYTHING THEY WANT IN THIS COMPROMISE, BUT THAT IS THE HALLMARK OF A GOOD TREATY OR NEGOTIATION.

NOTE: NOVICE/TECH STILL CW ONLY, NO DATA OF ANY KIND ON 80 METERS. LICENSE RESTRUCTURING MAY BE NEEDED, BUT IT OVER COMPLICATES THIS RULE MAKING PROCESS AND NEEDS TO BE HANDLED IN A SEPARATE PROCEEDING.

EXTRA VOICE/DATA OPERATORS MAY NOT TOTALLY LIKE THIS, AS REGISTERED IN THEIR COMMENTS ON RM-11759. HOWEVER, IF THERE IS NOT AN IMMEDIATE ADJUSTMENT OF THIS TYPE, CW OPERATIONS ARE LEGAL IN THE WHOLE BAND, AND THEY MAY WELL SEEK REFUGE FROM GROWING ACDS AND DATA INTERFERENCE IN THE VOICE/DATA SUB BANDS. YOU ARE ONLY DELAYING THE INEVITABLE. IT WOULD BE BETTER TO RESOLVE THIS AMICABLY NOW.

2. FCC NPRM-11708 WT-16-239 DOES NOT ALIGN US AMATEUR BANDS WITH INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS" FOR LOCATION OF AREAS OF CERTAIN EMISSIONS WITHIN THOSE BANDS, CREATING CONFLICT WITH IARU RULES FOLLOWED BY 160 COUNTRIES REPRESENTED BY IARU - CONTINUED

HERE IS THE IARU REGION 2 80 METER BAND PLAN. IT SHOULD BE CLEAR THAT THE ARRL PROPOSAL, AS AMENDED HERE, FIXES THE PROBLEM THAT FCC NPRM-11708 WT-16-239 DOES NOT ALIGN US AMATEUR BANDS WITH INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS" AS WRITTEN.

NOTE THAT THE WIDE BAND DATA AND ACDS ARE ALL LOCATED CONGRUENTLY TO THE ARRL BAND PLAN BETWEEN 3600 AND 3625.

NOTE THAT THEIR NARROW BAND DATA IS LOCATED CONGRUENTLY FROM 3.58 TO 3.60 MHz.

MY SIMPLIFIED PROPOSAL IS THAT CW/NARROW DATA OF 500 HZ OR LESS OCCUPY 3.5 TO 3.57 MHZ, WITH THE USUAL SET ASIDE AT 3.5 TO 3.525 FOR EXTRA CW/NARROW DATA.

80 METERS

Frequencies (kHz)	BW (Hz)	Mode	Applications and observations
3500-3510	200	cw	Priority for intercontinental operation (DX window)
3510-3560	200	cw	CW QRS Center of Activity 3555 kHz, CW contest preferred
3560-3580	200	cw	CW QRP Center of Activity 3560 kHz
3580-3590	500	CW, DM	
3590-3600	500	CW, DM	ACDS
3600-3625	2700 (*)	All modes	ACDS
3600-3650	2700	All modes	SSB contest preferred
3650-3700	2700	All modes	SSB QRP Center of Activity 3690 kHz
3700-3775	2700	All modes	SSB contest preferred, Image Center of Activity 3735 kHz, Emergency Center of Activity 3750 kHz
3775-3800	2700	All modes	Priority for intercontinental operation (DX window)
3800-3875	2700	All modes	
3875-3900	2700 (*)	All modes	Image Center of Activity 3845 kHz, AM Center of Activity 3885 kHz, Emergency Center of Activity 3985 kHz
3900-4000	2700	All modes	

YOU CAN NOW COMPARE REGION THE USA ARRL PROPOSAL AND THE REGION 2 BAND PLAN WITH REGION 1 (EUROPE AND OTHERS):

80 m Band:

200 CW, priority for intercontinental operation 3 510 – 3 560 200 CW, contest preferred, 3 555 kHz – QRS Centre of Activity 3 560 – 3 570 200 CW, 3 560 kHz – QRP Centre of Activity 3 570 – 3 580 3 580 – 3 590 3 590 – 3 600 3 590 – 3 600 3 600 – 3 620 3 600 – 3 650 3 600 – 3 650 3 600 – 3 650 2 700 3 650 – 3 700 3 650 – 3 700 3 650 – 3 700 3 700 – 3 775 2 700 All modes, SSB contest preferred, 3 690 kHz – SSB QRP Centre of Activity 3 760 kHz – Reg 1 Emergency Centre of Activity 3 775 – 3 800 2 700 All modes, SSB contest preferred, priority for intercontinental operation			
200 CW, 3 560 kHz – QRP Centre of Activity 3 570 – 3 580 200 Narrow band modes – digimodes 3 580 – 3 590 500 Narrow band modes – digimodes 3 590 – 3 600 500 Narrow band modes – digimodes, automatically controlled data stations (unattended) 3 600 – 3 620 2 700 All modes, SSB contest preferred, 3 630 kHz – Digital Voice Centre of Activity, (*) 3 650 – 3 700 2 700 All modes, SSB contest preferred 3 735 kHz – Image Centre of Activity 3 760 kHz – Reg 1 Emergency Centre of Activity	3 500 – 3 510	200	CW, priority for intercontinental operation
200 Narrow band modes – digimodes 3 580 – 3 590 500 Narrow band modes – digimodes 3 590 – 3 600 500 Narrow band modes – digimodes, automatically controlled data stations (unattended) 2 700 All modes, SSB contest preferred, 3 630 kHz – Digital Voice Centre of Activity, (*) 3 600 – 3 700 2 700 All modes, SSB contest preferred 3 735 kHz – Image Centre of Activity 3 760 kHz – Reg 1 Emergency Centre of Activity	3 510 – 3 560	200	CW, contest preferred, 3 555 kHz – QRS Centre of Activity
500 Narrow band modes – digimodes 500 Narrow band modes – digimodes, automatically controlled data stations 500 (unattended) 500 All modes – digimodes, automatically controlled data station (unattended), 500 All modes – digimodes, automatically controlled data station (unattended), 500 All modes, SSB contest preferred, 3 630 kHz – Digital Voice Centre of Activity, (*) 500 Activity, (*) 500 All modes, SSB contest preferred, 3 630 kHz – Digital Voice Centre of Activity 500 All modes, SSB contest preferred 500 Activity, (*) 500 All modes, SSB contest preferred 500 KHz – SSB QRP Centre of Activity 500 All modes, SSB contest preferred	3 560 – 3 570	200	CW, 3 560 kHz – QRP Centre of Activity
Narrow band modes – digimodes, automatically controlled data stations (unattended) 3 600 – 3 620 2 700 All modes - digimodes, automatically controlled data station (unattended), (*) All modes, SSB contest preferred, 3 630 kHz – Digital Voice Centre of Activity, (*) 3 650 – 3 700 2 700 All modes, SSB contest preferred, 3 690 kHz – SSB QRP Centre of Activity 3 700 – 3 775 2 700 All modes, SSB contest preferred 3 735 kHz – Image Centre of Activity 3 760 kHz – Reg 1 Emergency Centre of Activity	3 570 – 3 580	200	Narrow band modes – digimodes
(unattended) 3 600 – 3 620 2 700 All modes - digimodes, automatically controlled data station (unattended), (*) All modes, SSB contest preferred, 3 630 kHz – Digital Voice Centre of Activity, (*) 3 650 – 3 700 2 700 All modes, SSB contest preferred, 3 690 kHz – SSB QRP Centre of Activity 3 700 – 3 775 2 700 All modes, SSB contest preferred 3 735 kHz – Image Centre of Activity 3 760 kHz – Reg 1 Emergency Centre of Activity	3 580 – 3 590	500	Narrow band modes – digimodes
3 600 – 3 650 2 700 All modes, SSB contest preferred, 3 630 kHz – Digital Voice Centre of Activity, (*) 2 700 All modes, SSB contest preferred, 3 690 kHz – SSB QRP Centre of Activity 3 700 – 3 775 2 700 All modes, SSB contest preferred 3 735 kHz – Image Centre of Activity 3 760 kHz – Reg 1 Emergency Centre of Activity	3 590 – 3 600	500	· · · · · · · · · · · · · · · · · · ·
Activity, (*) 3 650 – 3 700 2 700 All modes, 3 690 kHz – SSB QRP Centre of Activity 2 700 All modes, SSB contest preferred 3 735 kHz – Image Centre of Activity 3 760 kHz – Reg 1 Emergency Centre of Activity	3 600 – 3 620	2 700	All modes - digimodes, automatically controlled data station (unattended), (*)
3 700 – 3 775 2 700 All modes, SSB contest preferred 3 735 kHz – Image Centre of Activity 3 760 kHz – Reg 1 Emergency Centre of Activity	3 600 – 3 650	2 700	
3 735 kHz – Image Centre of Activity 3 760 kHz – Reg 1 Emergency Centre of Activity	3 650 – 3 700	2 700	All modes, 3 690 kHz – SSB QRP Centre of Activity
3 760 kHz – Reg 1 Emergency Centre of Activity	3 700 – 3 775	2 700	All modes, SSB contest preferred
3 775 – 3 800 2 700 All modes, SSB contest preferred, priority for intercontinental operation			
	3 775 – 3 800	2 700	All modes, SSB contest preferred, priority for intercontinental operation

NOTE THAT FOR WIDE BAND DATA, AGAIN CONGRUENCE OCCURS AT 3.6 TO 3.62 MHZ. WHILE NARROW ACDS IS ALLOWED AS FAR DOWN AS 3.58, THAT ALSO AGREES WITH THE ARRL PROPOSED BAND PLAN, IF IT IS COMPROMISED AT 3.625 UPPER LIMIT INSTEAD OF 3.65, AS PROPOSED IN RM-11759. THIS MIGHT BE A SOLUTION EXTRA VOICE OPERATORS COULD LIVE WITH.

IARU REGION 2 CW/NARROW DATA IS THEN ESSENTIALLY THE SAME AS OURS.

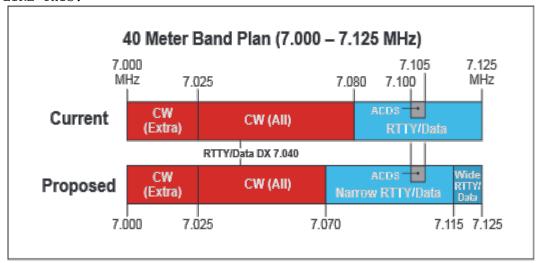
SO MY PROPOSAL TO ADOPT THE ARRL 80 METER PROPOSED BAND PLAN, WITH MY MODIFICATION, SOLVES ALL THESE INCONSISTENCIES WHILE SATISFYING THE FCC DESIRE TO HAVE NO BAND WIDTH LIMIT ON WIDE BAND DATA. AND IT STILL CONFORMS TO INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS".

NOTE: NOVICE/TECH STILL CW ONLY, NO DATA OF ANY KIND ON 80 METERS. LICENSE RESTRUCTURING MAY BE NEEDED, BUT IT OVER COMPLICATES THIS RULE MAKING PROCESS AND NEEDS TO BE HANDLED IN A SEPARATE PROCEEDING.

60 METERS IS A SPECIAL CASE THAT IS VERY COMPLICATED. NO WIDE DATA OR ACDS IS ALLOWED THERE. IT SHOULD BE COVERED BY A SEPARATE RULE MAKING IF THIS BAND IS EVER TAKEN UP FOR CONSIDERATION. I PROPOSE NO 60 METER CHANGES BE LINKED TO THIS NPRM-11708, WT16-239, RM-11759, OR RM-11769.

60 METERS WILL LIKELY BE BROUGHT UP IN A FUTURE RULEMAKING THAT INTRODUCES NEW NON CHANNELIZED ASSIGNMENTS AT A LOWER POWER OF 15 WATTS. ANY NECESSARY ADJUSTMENTS CAN BE MADE THEN, WITHOUT COMPLICATING NPRM-11708 AND WT 16-239.

LET US CONTINUE WITH 40 METERS. THE ARRL HAS PROPOSED, AND THE CURRENT USA BAND PLAN IS LIKE THIS:



IT LEAVES THE ACDS AT 7.1 TO 7.105, BUT MOVES THE WIDE BAND DATA UP TO 7.125, WHICH WOULD HELP INTERFERENCE PROBLEMS. I PROPOSE THAT FCC ADOPT THIS PROPOSED BAND PLAN WITH THE PROVISO THAT ACDS STATIONS ON 40 METERS BE CONFINED BY PART 97 STATUTE TO THE 7.1 TO 7.105 SEGMENT AND LIMITED TO NARROW EMISSION ONLY. WIDE BAND DATA WOULD BE ONLY PERMITTED IN THE 7.115 TO 7.125 SEGMENT, WHERE THEY COULD ALSO BE ACDS. NOTE FOR CLARITY THAT THIS PROHIBITS BY PART 97 LAW ANY ACDS BELOW 7.1 MHZ, INCLUDING "AUTO RESPONDING STATIONS" OR "ROBOTS" OR UNATTENDED OF ANY KIND. NOTE: NOVICE/TECH STILL CW ONLY, NO DATA OF ANY KIND ON 80 METERS. LICENSE RESTRUCTURING MAY BE NEEDED, BUT IT OVER COMPLICATES THIS RULE MAKING PROCESS AND NEEDS TO BE HANDLED IN A SEPARATE PROCEEDING.

7.0 TO 7.025 STILL EXTRA CW/DATA 500 HZ MAX

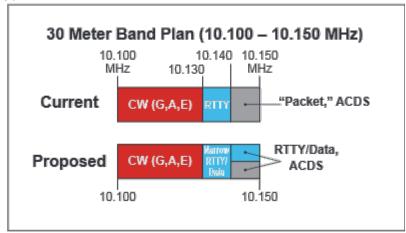
IT WILL BE MUCH MORE DIFFICULT TO GET CORRELATION WITH INTERNATIONAL BAND ALLOCATIONS ON 40 METERS. BUT ONE THING IS CLEAR: REGION 2 DOES SEPARATE THE NARROW BAND DATA FROM THE WIDE BAND DATA, AND ONLY ALLOWS A MAXIMUM OF 2.7 KHZ FOR DATA. THAT IS STILL CLEARLY A "GENERALLY APPLICABLE STANDARD."

THE REGION 2 (INCLUDES USA) BAND PLAN IS THIS (UP TO 7200):

40 m Band:

7 000 – 7 040	200	CW,	7 030 kHz - QRP Centre of Activity
7 040 – 7 047	500	Narrow band modes - o	digimodes
7 047 – 7 050	500	Narrow band modes – ((unattended)	digimodes, automatically controlled data stations
7 050 – 7 053	2 700	All modes – digimodes, (*)	automatically controlled data stations (unattended)
7 053 – 7 060	2 700	All modes – digimodes	
7 060 – 7 100	2 700	All modes, SSB contest	preferred
			7 070 kHz – Digital Voice Centre of Activity
			7 090 kHz – SSB QRP Centre of Activity
7 100 – 7 130	2 700	All modes,	7 110 kHz – Reg 1 Emergency Centre of Activity
7 130 – 7 175	2 700	All modes, SSB contest	preferred, 7 165 kHz - Image Centre of Activity
7 175 – 7 200	2 700	All modes, SSB contest	preferred, priority for intercontinental operation

LET US CONTINUE WITH 30 METERS. THE ARRL HAS PROPOSED, AND THE CURRENT USA BAND PLAN IS LIKE THIS:



THE REGION 2 BAND PLAN IS LIKE THIS:

30 METERS

Frequencies (kHz)	BW (Hz)	Mode	Applications and observations
10100 - 10130	200	CW	CW QRP Center of Activity 10116 kHz
10130 - 10140	500	CW, DM	ACDS
10140 - 10150	2700	CW, DM	

Footnotes

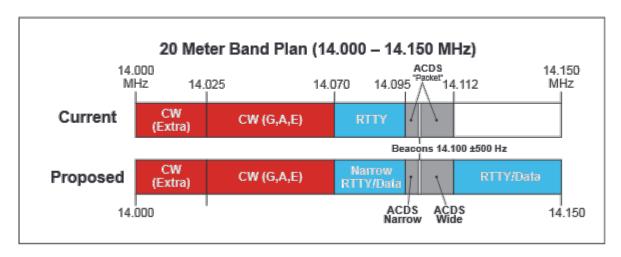
CW Beacons should be avoided.

AGAIN, THE ARRL PROPOSED BAND PLAN THEY FILED FOR RM-11708 IS CONGRUENT WITH THE REGION 2 BAND PLAN. THIS IS A VERY NARROW BAND AND REQURES SPECIAL TREATMENT.

I PROPOSE AGAIN THAT THE ACDS AND WIDE DATA BE CONFINED TO THE ARRL SUGGESTED SEGMENT OF 10.140 TO 10.150. NO LIMIT ON BAND WIDTH, BUT ALL OF IT MUST BE CONTAINED WITHIN THAT SEGMENT. ALSO NO ACDS OUTSIDE THAT SEGMENT. IT MIGHT MAKE MORE SENSE TO FOLLOW THE ARRL PROPOSAL TO LIMIT WIDE DATA TO 2.8 KHZ OR 3 KHZ ON THIS BAND, TO ALLOW STANAG.

ALSO CW/NARROW DATA FROM 10.1 TO 10.14, NO ACDS OR "AUTO RESPONDING STATIONS".

THIS STILL CONFORMS TO INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS".



THE IARU REGION 2 BAND PLAN IS:

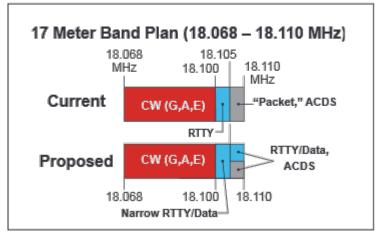
20 METERS

Frequencies (kHz)	BW (Hz)	Mode	Applications and observations
14000-14025	200	cw	Priority for intercontinental operation (DX window)
14025-14060	200	cw	CW Contests preferred, CW QRS Center of Activity 14055 kHz
14060-14070	200	cw	CW QRP Center of Activity 14060 kHz
14070-14089	500	CW, DM	
14089-14099	500	CW, DM	ACDS
14099-14101	200	cw	IBP (exclusive)
14101-14112	2700	All Modes	ACDS
14112-14190	2700	All Modes	SSB Contest preferred
14190-14200	2700	All Modes	SSB Priority for intercontinental operation (DX window), SSB Contest preferred
14200-14285	2700	All Modes	SSB Contest preferred, Image Center of Activity 14230 kHz, SSB QRP Center of Activity 14285 kHz
14285-14300	2700 (*)	All Modes	AM Calling QRG 14285 kHz
14300-14350	2700	All Modes	Global Emergency Center of Activity 14300 kHz

THIS SIDE BY SIDE COMPARISON SHOWS A CONSIDERABLY WIDER AREA (CURRENTLY LEGAL UNDER USA LAW) FOR WIDE BAND DATA. IT MAY CONFLICT WITH NEARBY FOREIGN VOICE IN THE REGION 14.112 TO 14.150, BUT THAT MAY ALREADY BE OCCURRING.

I PROPOSE THAT FCC FORMALIZE IN PART 97 LAW THAT ACDS AND WIDE BAND DATA ONLY OPERATE FROM 14.101 TO 14.150. ALSO, NARROW BAND DATA WITH ACDS IS PERMITTED FROM 14.095 TO 14.099. BUT NO DATA FROM 14.099 TO 14.101 TO AVOID BEACONS.
14.0 TO 14.095 SHOULD BE CW/NARROW DATA 500 HZ MAX, NO ACDS, NO "AUTO RESPONDING STATIONS". THE USUAL 14.0 TO 14.025 FOR EXTRA CONTINUES.

LET US CONTINUE WITH 17 METERS. THIS IS A SPECIAL NARROW BAND. THE ARRL PROPOSAL AND DURRENT USA BAND PLAN ARE AS FOLLOWS:



THE REGION 2 IARU IS:

17 METERS

Frequencies (kHz)	BW (Hz)	Mode	Applications and observations
18068-18095	200	CW	CW QRP Center of Activity 18086 kHz
18095-15105	500	CW, DM	
18105-18109	500	CW, DM	ACDS
18109-18111	200	CW	IBP (exclusive)
18111-18120	2700	All modes	ACDS
18120-18168	2700	All modes	QRP Center of Activity 18130 kHz, Global Emergency Center of Activity 18160 kHz

NOTE FIRST THAT THE REGION 2 WIDER DATA IS ONLY 2.7 KHZ. DUE TO THE SIZE OF 17 METERS OVERALL, NO UNLIMITED BAND WIDTH WIDE DATA SHOULD BE PERMITTED THIS BAND. A LIMIT OF 3 KHZ FOR STANAG SHOULD BE THE MAXIMUM CONSIDERED. IT WOULD BE PREFERABLE TO KEEP ALL ACDS AND WIDE DATA OFF THIS BAND DUE TO ITS SIZE.

ACDS AND 3 KHZ WIDE DATA SHOULD ONLY BE ALLOWED 18.111 - 18.120, IF IT IS PERMITTED AT ALL.

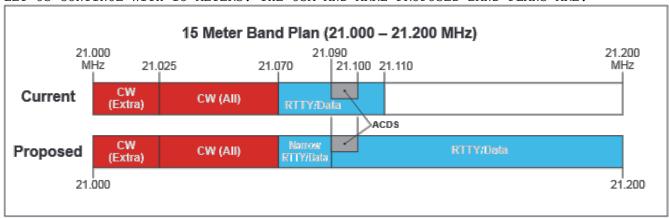
18.068 - 18.109 CW/NARROW 500 HZ MAX AND NO ACDS OR "AUTO RESPONDING STATIONS"

18.120 - 18.168 VOICE/IMAGE NO ACDS OR DATA.

CW IS STILL LEGAL ON ALL AMATEUR FREQUENCIES, TO ALLOW CW FOR ID

IT STILL CONFORMS TO INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS".

LET US CONTINUE WITH 15 METERS. THE USA AND ARRL PROPOSED BAND PLANS ARE:



THE IARU REGION 2 BAND PLAN IS:

15 METERS

Frequencies (kHz)	BW (Hz)	Mode	Applications and observations
21000-21070	200	CW	CW QRP Center of Activity 21060 kHz
21070-21090	500	CW, DM	
21090-21110	500	CW, DM	ACDS
21110-21120	2700	CW, DM	ACDS
21120-21149	500	All modes	
21149-21151	200	cw	IBP (exclusive)
21151-21450	2700	All modes	SSB QRP Center of Activity 21285 kHz, Image Center of Activity 21340 kHz, Global Emergency Center of Activity 21360 kHz

THE ARRL EXPANSION OF WIDE BAND DATA IS PRETTY AGGRESSIVE ON THIS BAND AND MAY HAVE IMPACT ON VOICE MODES IN FOREIGN COUNTRIES. FOR ABOUT 1/2 OF THE SUNSPOT CYCLE, THIS BAND MAY NOT HAVE THAT MUCH USE FOR ACDS STORE AND FORWARD OPERATIONS. I DO NOT UNDERSTAND THEIR THINKING. HOWEVER, IT DOES OFFER RELIEF TO CW AND NARROW BAND DATA OPERATORS IN THE USA, BY MOVING ALL WIDE BAND OPERATIONS ABOVE 21.090.

CONGRUENCE OF THE ARRL BAND PLAN PROPOSAL IS VERY GOOD WITH THE IARU REGION 2 BAND PLAN FOR CW/NARROW BAND DATA 500 HZ MAX FROM 21.0 TO 21.090. THAT IS WHY I PETITION AND COMMENT THAT WE ADOPT THIS ARRL PROPOSAL, WITH THE FOLLOWING PROVISIONS:

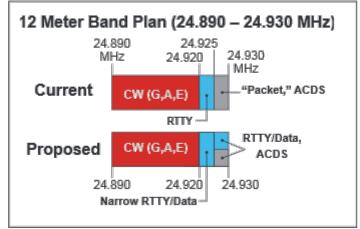
- 21.0 TO 21.090 IS 500 HZ MAX CW/NARROW DATA. NO ACDS OR "AUTO RESPONDING STATIONS".
- 21.090 TO 21.200 IS WIDE BAND DATA, NO LIMIT, WITH ACDS OR AUTO RESPONDING OK.
- 21.0 TO 21.025 STILL EXTRA ONLY.

VOICE/IMAGE ASSIGNMENTS STILL NO CHANGE.

NOTE: NOVICE/TECH STILL CW ONLY, NO DATA OF ANY KIND ON 80 METERS. LICENSE RESTRUCTURING MAY BE NEEDED, BUT IT OVER COMPLICATES THIS RULE MAKING PROCESS AND NEEDS TO BE HANDLED IN A SEPARATE PROCEEDING.

MY PETITION AND COMMENT STILL CONFORMS TO INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS".

LET US CONTINUE WITH 12 METERS. THE USA AND ARRL PROPOSED BAND PLANS ARE:



THE IARU REGION 2 BAND PLAN IS:

12 METERS

Frequencies (kHz)	BW (Hz)	Mode	Applications and observations
24890-24915	200	CW	CW QRP Center of Activity 24906 kHz
24915-24925	500	CW, DM	
24925-24929	500	CW, DM	ACDS
24929-24931	200	cw	IBP (exclusive)
24931-24940	2700	All modes	ACDS
24940-24990	2700	All modes	SSB QRP Center of Activity 24950 kHz

12 METERS IS TOO SMALL TO PROVIDE FOR ACDS. THE LARGER ALLOCATION AT 15 METERS PROPOSED IS PLENTY. THIS BAND ONLY IS RELIABLY ACTIVE ABOUT 20% OF THE SUNSPOT CYCLE. LITTLE BENEFIT WILL ACCRUE BY ALLOWING ACDS AND ESPECIALLY WIDE BAND DATA ON 12 METERS. I PERSONALLY PREFER NOT TO ALLOW EITHER ON 12 METERS.

BUT WE ARE TRYING TO GET THINGS DONE HERE, SO I PETITION AND COMMENT THAT FCC ADOPTS THE ARRL BAND PLAN PROPOSAL, WITH THE FOLLOWING PROVISOS:

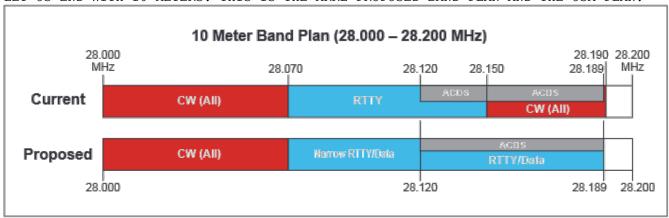
PART 97 ONLY ALLOWS ACDS OR WIDE BAND DATA UP TO 3 KHZ FROM 24.925 TO 24.930.

PART 97 ALLOWS CW AND NARROW 500 HZ DATA FROM 24.980 TO 24.925 BUT NO ACDS OR AUTO RESPONDING STATIONS.

NO CHANGES TO VOICE/IMAGE ON 12 METERS.

MY PETITION AND COMMENT STILL CONFORMS TO INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS" BY SEPARATING THE INCOMPATIBLE MODES.

LET US END WITH 10 METERS. THIS IS THE ARRL PROPOSED BAND PLAN AND THE USA PLAN:



THIS IS THE IARU REGION 2 BAND PLAN:

10 METERS

Frequencies (kHz)	BW (Hz)	Mode	Applications and observations
28000-28070	200	cw	CW QRS Center of Activity 28055 kHz, CW QRP Center of Activity 28060 kHz
28070-28120	500	CW, DM	
28120-28150	500	CW, DM	ACDS
28150-28190	500	CW, DM	
28190-28225	200	CW	Beacons, IBP (exclusive) 28199-28201 kHz
28225-28300	2700	All modes	Beacons
28300-28320	2700	All modes	ACDS
28320-29000	2700	All modes	DV Center of Activity 28330 kHz, SSB QRP Center of Activity 28360 kHz, Image Center of Activity 28680 kHz
29000-29200	6000	All modes	AM preferred
29200-29300	6000	All modes	ACDS
29300-29510	6000	All Modes	Satellite
29510-29520			Guard band, no transmission allowed
29520-29590	6000	FM, DV	Repeater inputs (exclusive) (9 channels of 10 kHz from 29520-29590 kHz)
29590-29620	6000	FM, DV	FM calling QRG 29600 kHz
29620-29700	6000	FM, DV	Repeater outputs (9 channels of 10 kHz from 29620 to 26690 kHz)

THERE ARE SIGNIFICANT DISCREPANCIES BETWEEN THE REGION 2 AND THE USA BAND PLANS FOR ACDS. BUT I PETITION AND COMMENT THAT WE SHOULD FORMALIZE THE ARRL PROPOSED BAND PLAN IN PART 97 RULES ANYWAY, PROVIDING:

NO CHANGES TO VOICE/IMAGE OR NOVICE OR EXTRA EXISTING ASSIGNMENTS.

ALL WIDE DATA AND ACDS CONTAINED WITHIN 28.120 AND 28.189.

CW/NARROW DATA 500 HZ MAX 28.0 TO 28.120, NO ACDS OR AUTO-RESPONDING.

IARU REGION 1 HF BAND PLAN IS ALSO HELPFUL AS PROVIDING INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS". I REMIND YOU REGION 1 REFERS TO EUROPE, AFRICA, AND THE MIDDLE EAST. IN NO CASE DOES IT AUTHORIZE USE OF DATA BAND WIDTH IN EXCESS OF 2.7 KHZ BELOW 29 MHZ. IT STATES A GENERAL POLICY:

The term "automatically controlled data stations" includes Store and Forward stations. IARU member societies are requested to limit this activity on the HF bands.

It is recommended that any unmanned transmitting stations on HF shall only be activated under operator control except for beacons agreed with the IARU Region 1 beacon coordinator, or specially licensed experimental stations.

Unmanned transmitting stations, and operation involving unmanned transmitting stations, must adhere to the frequency and bandwidth limits of the band plan.

Amateur radio operators may transmit messages via unmanned transmitting stations during coordinated emergency, and disaster preparedness exercises, limited to the duration of such exercises, using a bandwidth not exceeding 2 700 Hz. Such communication should be announced regularly on the frequency, and radio amateurs not participating in the communication should cooperate by not transmitting on the frequency.

IARU REGION 3 BAND PLAN, ANOTHER INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARD" HAS THE FOLLOWING PROVISIONS:

 ${\tt NB:}$ Narrow band modes including CW, RTTY, Packet and modes with similar bandwidth not exceeding 2 kHz.

IN ITS BAND PLAN CHARTS, THERE IS ONLY NB PERMITTED BELOW 29 MHZ.

THE JAPANESE HF BAND PLAN ALSO WEIGHS IN ON THIS ISSUE:

NB: Narrow-Band (up to 3kHz and A3E(<6kHz))

WB: Wide-Band (more than 3kHz)

THE BAND PLANS CONFINE DATA TO CERTAIN SEGMENTS (LESS THAN CW) AND IN NO CASE, IS ANYTHING OTHER THAN NB BELOW $29~\mathrm{MHz}$.

THIS IS EVIDENCE OF PRETTY GOOD CONSENSUS BETWEEN REGION 1, 2, AND 3 AS WELL AS JAPAN. I DO NOT UNDERSTAND WHY THE FCC NOW PROPOSES TO DELIBERATELY GO AGAINST ALL THOSE INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS" IN ITS NPRM-11708 AND WT 16-239. FURTHERMORE, THE FCC HAS DEMONSTRATED A LACK OF ABILITY TO ENFORCE THE CURRENT REGULATIONS. I OFFER IN EVIDENCE THE FOLLOWING INCIDENT IN FCC'S OWN FILINGS THAT IT IS NOW SO COMMONPLACE THAT PEOPLE DO NOT CONSIDER IT ILLEGAL:

(FILING BY RANDAL EVANS IN RM-11708: https://ecfsapi.fcc.gov/file/7521315143.pdf) "I have experienced very dependable service from the amateur radio Internet Winlink system. Its a great service because all of the other available Internet services cost money. Even when I am topside crusing the system runs automatically below deck publishing my position reports and downloading my email. I use the system for sending position reports, ordering supplies, repairs, chatting with friends and posting to facebook....I am not a amateur radio operator yet but a friend lets me use his call with a SIDD on the end....I'm for passing RM-11708 into law with no bandwdith limits."

BESIDES THE OBVIOUS UNLICENSED OPERATION, IT ALSO CAUSES ME TO EXPRESS CONCERN THAT FCC HAS NOT CONSIDERED THE LOSS OF JUST REVENUE TO SMALL BUSINESSES (REQUIRED IN ALL CASES). Those businesses would include, but not be limited to, SailMail and other HF email providers. With speeds competitive with SailMail, Pactor 4 on amateur radio would cause others to switch as this person has.

THE PROVISION TO GET THE FCC DESIRED "NO BAND WIDTH" LIMIT ON WIDE DATA IS GOING TO WORK, WITH SOME MINOR ADJUSTMENTS TO KEEP THE EXPERIMENTAL WIDE DATA MODES WITHIN A LEGALLY SET PORTION OF FREQUENCIES.

BUT THE RM-11769 PETITION IS STILL HANGING THERE, PARTIALLY WITHDRAWN EXCEPT FOR TWO CW SEGMENTS ON 6 METERS AND 2 METERS. I PETITION AND COMMENT AND REQUEST THAT RM-11769 BE DISMISSED ENTIRELY, INCLUDING THE REMAINING PARTS APPLYING TO 6 AND 2 METER CW ONLY SEGMENTS. THE ORIGINAL RM-11769 FILING WAS TERRIBLY FLAWED, INCORRECT IN SO MANY FACETS, AND SO UNIVERSALLY NEGATIVELY COMMENTED ON BY SO MANY FILERS, THAT IT DOES NOT MERIT KEEPING IT ALIVE FOR THIS SMALL AREA OF CONTENTION, WHICH IS NOT PART OF THE HF SPECTRUM. IN KEEPING WITH MY TRADITION OF INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS", LET'S SEE WHAT THE IARU BAND PLAN SAYS ABOUT 6 AND 2 METERS.

50.0 TO 50.1 CW AND BEACONS.

144.0 TO 144.110 CW. ESPECIALLY ENCOURAGES WEAK SIGNAL EME (MOONBOUNCE)

144.0 TO 144.025 HAS A SPECIALIZED SEGMENT FOR SATELLITES. NOTE 1 STATES THAT "Designers and operators of satellites using this section shall not transmit below 144,0025 MHz so that a necessary guard band is provided at the bottom band edge" $2.7~{\rm KHZ}$ IS ALLOWED THERE.

USA HF BAND PLAN IS NOW PRETTY MUCH IN AGREEMENT WITH IARU REGION 2. WE MIGHT WANT TO ADOPT THE SATELLITES PART, IF THAT IS STILL USEFUL, BUT I REALLY THINK IT IS THE REASONABLE AND EXPEDITIOUS THING TO DISMISS THE RM-11769 AND TAKE THIS UP SEPARATELY, IF IT BECOMES AN ISSUE, WITH A BETTER PREPARED PETITION LATER.

WHAT IS LEFT?

3. FCC NPRM-11708 WT-16-239 CURRENTLY IGNORES CONFLICT RESULTING FROM OPERATION OF AUTOMATICALLY CONTROLLED DATA STATIONS AND "AUTO RESPONDING STATIONS"; IF THIS PETITION IS ADOPTED, THAT WILL BE CONTAINED WITHIN THE NEWLY ALLOCATED WIDE BAND DATA SEGMENTS, PROTECTING BOTH WIDE AND NARROW BAND DATA OPERATIONS.

HAPPILY, IF THE FCC ADOPTS THE ARRL BAND PLANS WITH MODIFICATIONS PROPOSED IN THIS PETITION AND COMMENT, THAT IS SOLVED.

AND THE FCC WILL NOT HAVE TO REVISIT THIS WHOLE ISSUE IN A SHORT TIME TO INCLUDE A NEW DATA MODE, BECAUSE AS LONG AS THE NEW EMISSION MEETS CERTAIN BASIC REQUIREMENTS, AND FITS IN THE WIDE BAND DATA FREQUENCY ALLOCATIONS DISCUSSED PREVIOUSLY, NO MORE RULINGS ARE NEEDED SOON. PACTOR 4, STANAG, AND MANY OTHER POSSIBILITIES ARE REALIZED WITHOUT ANY MORE EXPENSIVE WRANGLING.

THE NARROW BAND CW/DATA PEOPLE (HUMANS) DO NOT CARE WHAT GOES ON IN THE WIDE BAND DATA (ROBOT) AREAS ANY MORE, BECAUSE IT IS NOT BOTHERING THEM.

THE VOICE/DATA PEOPLE DO NOT CARE ABOUT IT BECAUSE THE CW GUYS ARE NOT UP IN THE VOICE/DATA AREAS TRYING TO ESCAPE FROM WIDE BAND DATA AND ACDS "ROBOTS". TRUE, THEY DID MAKE A SACRIFICE OF 3.6 TO 3.625 IN THE EXTRA 80 METER PHONE. BUT IT PREVENTS THE OTHER PROBLEM. IT IS A COMPROMISE THAT ALL CAN LIVE WITH. PERHAPS A LIMIT OF 3.625 WILL BE NEGOTIATED. IT HELPS ALIGN US ROBOT ALLOCATIONS WITH REGION 2.

NOTHING PRECLUDES THE ARRL NTS OR AN EMERGENCY OPERATION FROM EMPLOYING NARROW BAND CLOVER, HUMAN TO HUMAN, IN THE CW/NARROW SEGMENT, AS DEMONSTRATED IN THE RECENT ARRL "CASCADIA RISING" EMERGENCY EXERCISE. I THINK THIS IS A WIN WIN FOR NEARLY EVERYONE, EVEN THE ARRL.

AND AS WE HAVE SEEN PREVIOUSLY, IT FOLLOWS THE GENERAL PRINCIPLE OF SEPARATING INCOMPATIBLE MODES. THAT IS APPLYING "GENERALLY APPLICABLE STANDARDS".

- 4. FCC RM-11759 PROPOSES TO CHANGE THE CW/DATA ALLOCATION ON 80 METERS TO 3.5 TO 3.65 MHZ. I PROPOSE TO MODIFY THAT TO 3.5 TO 3.625, WHICH ALIGNS WITH IARU REGION 2 BAND PLANS, AND ESTABLISH A NEW "WIDE BAND DATA" SEGMENT IN THAT EXPANDED AREA OF 80 METERS. THIS IS A COMPROMISE POSITION WHICH IS THE ONLY CHANGE FOR VOICE/DATA, AND SIGNIFICANTLY LESS THAN PROPOSED IN THE WIDELY OPPOSED RM-11759. IT ALSO COMPLIES WITH "GENERALLY APPLICABLE STANDARDS" IN IARU REGION 2.
- I THINK WE ARE GOOD ON THIS ONE SO FAR, SEE THE PREVIOUS DISCUSSIONS.
- 5. FCC NPRM-11708 WT-16-239 IGNORES 160 METER BAND PLAN IN IARU BAND PLANS; PART 97 NOW NEEDS TO INCLUDE A PLAN FOR 160 METERS TO HARMONIZE WITH IARU "GENERALLY APPLICABLE STANDARDS".

WE COVERED THIS ONE TOO ALREADY. HANG IN THERE, ONLY A LITTLE MORE.

WHAT'S LEFT?

6. FCC RM-11759 AND ARRL PROPOSES TO GRANT DATA PRIVILEGES ON HF BAND BELOW 28 MHZ TO EXISTING NOVICE AND TECHNICIAN LICENSEES; WHY THIS SHOULD NOT BE DONE.

Both Novice and Technician class licenses are inappropriate for the new WIDE BAND DATA modes. Either the existing General class license or a newly created HF entry class needs to be created, as ARRL has discussed, as an entry point for the new WIDE BAND DATA privileges. In any event, neither additional narrow band DATA nor additional wide band DATA should be permitted to Novice or Tech in areas where they can operate CW under current rules in the HF region below 28 MHz. This portion of proposed RM-11759 should be eliminated IN FCC rulemaking.

LICENSE RESTRUCTURING MAY BE NEEDED, BUT IT OVER COMPLICATES THIS RULE MAKING PROCESS AND NEEDS TO BE HANDLED IN A SEPARATE PROCEEDING.

SERIOUSLY, THE NOVICE CLASS LICENSE HAS NOT BEEN ISSUED SINCE 2000. IT NEVER INCLUDED TECNOLOGY WITH THE POWER WE HAVE BEEN DISCUSSING IN THIS RULEMAKING PROCEDURE. IF A NOVICE HAS NOT HAD ENOUGH INITIATIVE TO UPGRADE BY NOW, THERE IS NO CONFIDENCE THAT THEY WILL EVER ACQUIRE THE REQUISITE SKILLS TO OPERATE A WIDE BAND DATA SIGNAL INTO AN ACDS STORE AND FORWARD STATION. I PETITION AND REQUEST BY COMMENT THAT THIS BE DISMISSED.

YOU MIGHT MAKE AN ARGUMENT FOR THE TECHNICIAN CLASS, EXCEPT THAT TRADITIONALLY HAS BEEN A VHF/UHF EXPERIMENTER CLASS LICENSE. THEY DO NOT POSSESS THE KNOWLEDGE OF GENERAL CLASS LICENSEES. LITTLE TESTING ON HF WAS DONE IN THE TECH EXAM. WITH THE ELIMINATION OF THE MORSE CODE EXAM, THE GENERAL TEST IS WITHIN THE REACH OF ANYONE WHO IS INTELLIGENT ENOUGH TO OPERATE AN HF DATA STATION. SOME OF THE TECHNICIANS HAVE NOT BEEN TESTED IN MANY MANY YEARS.

- I, AND PROBABLY MOST OF THE REST OF US, OPPOSE A "FREE UPGRADE" TO THOSE THAT DID NOT EARN IT. IT IS AGAINST THE PRINCIPLE OF "INCENTIVE LICENSING" PUT FORTH BY THE ARRL AND THE FCC IN 1964.
- IF ANYONE WANTS TO CONSIDER A "FREE UPGRADE" IT WOULD BE BETTER TO MERGE ADVANCED AND EXTRA, NOW THAT MORSE CODE IS NO LONGER REQUIRED. THE OLD ELEMENT 4A WAS VERY CHALLENGING. THE ELEMENT 4B WAS VERY SMALL AND NOT HARD AT ALL; THE REAL BARRIER WAS THE 20 WPM MORSE CODE. I KNOW, I TOOK THAT EXAM IN FRONT OF AN FCC FIELD OFFICER IN BUFFALO IN 1971.
- I PETITION AND REQUEST AND COMMENT THAT THE NOVICE AND TECHNICIAN CLASS NOT BE GRANTED ANY NEW DATA PRIVILEGES BELOW 28 MHZ.

WHAT'S LEFT?

7. FCC RM-11769 HAS BEEN WITHDRAWN BY THE AUTHOR EXCEPT FOR THE PROVISIONS APPLYING TO 6 AND 2 METER CW SEGMENTS. I PETITION AND REQUEST AND COMMENT FOR DISMISSAL OF RM-11769 IN ITS ENTIRETY AS PART OF THIS OMNIBUS PETITION FOR RULEMAKING TO DISPOSE OF ALL RELATED RULINGS AND BRING THIS PROCEEDING TO AN END.

WE HAVE COVERED THAT IN THE 6 AND 2 METER DISCUSSION ABOVE. I AGAIN PETITION AND REQUEST BY COMMENT THAT WE DISMISS RM-11769 IN ITS ENTIRETY.

WHILE I HAVE NOT INCLUDED GRAPHICS FROM IARU REGION 1 OR 3, I HAVE LISTED THEM IN THE REFERENCES SECTION. YOU MAY WISH TO REFER TO THEM AS WELL. THEY ALL SEPARATE NARROW AND WIDE DATA MODES. NONE OF THEM ALLOWS DATA WIDER THAN 3 KHZ.

ALL STATEMENTS HAVE BEEN GATHERED FROM ORIGINAL SOURCES AND ARE FACTUAL. THEY INCLUDE INTERNATIONALLY RECOGNIZED "GENERALLY APPLICABLE STANDARDS". ALL THAT IS LEFT IS TO GIVE THE FCC THE SOURCES I USED TO PREPARE THIS IN A LIST OF REFERENCES.

REFERENCES:

IARU REGION 2 BAND PLAN

Available at both links below:

http://www.hflink.com/bandplans/Region_2_MF__HF_Bandplan_Annex__1_2008.pdf http://www.iaru-r2.org/documents/explorer/files/Plan%20de%20bandas%20%7C%20Band-plan/R2%20Band%20Plan%202013.pdf

ARRL DRAFT PROPOSAL HF BAND PLAN (BASIS FOR THEIR FILING ON RM-11708). PARTICULARLY VALUABLE FOR THE GRAPHICS OF ARRL PROPOSED AND CURRENT USA BAND PLANS: http://www.arrl.org/files/file/About%20ARRL/Committee%20Reports/2015/January/SUMNER %20QS4.pdf

EARLIER ARRL FILING RESPONSE AND ERRATUM TO RM-11708 DATED DECEMBER 23,2013: https://ecfsapi.fcc.gov/file/7521063715.pdf (NOTE: STILL REQUESTING 2.8 KHZ DATA MAXIMUM)

IARU REGION 1 HF BAND PLAN:

http://www.iaru-r1.org/index.php/spectrum-and-band-plans/hf

IARU REGION 3 BAND PLAN:

http://www.radioamadores.org/biblio/iaru/R3-2015.pdf

A FILING BY RANDAL EVANS IN RM-11708: https://ecfsapi.fcc.gov/file/7521315143.pdf

CONCLUSION:

WHEREFORE, the foregoing considered, the undersigned respectfully moves, requests, and petitions the FCC to issue its NPRM or REPORT AND ORDER to implement the foregoing as soon as practically possible. Do not forget the small business implications mentioned. DON'T PROCRASTINATE, REGULATE!

Respectfully Submitted:

/s/

Janis Carson, Extra Class, AB2RA, licensed since 1959

DATE: AUGUST 29, 2016

APPENDIX OF SUGGESTED WORDING FOR PART 97 TO CORRECT PROBLEMS OBSERVED UNDER CURRENT RULES, AND TO ADDRESS THE NEEDS OF THIS FILING.

- 1) remove the "Emission types authorized" column from §97.305 (c)
- 2) replace all instances of (7) with (6) in §97.305 (c)
- 2) Modify §97.307 (f) as follows:
 - (1) No angle-modulated emission may have a modulation index greater than 1 at the highest modulation frequency.
 - (2) The authorized bandwidth for all emissions is 3 KHz with the exception that an A3E emission shall not exceed 8.0 KHz.
 - (3) The authorized bandwidth is 400 Hz. RTTY or data transmission must employ only specified digital codes listed in \$97.309(a) of this part.
 - (4) The authorized bandwidth is 400 Hz. RTTY or data transmission must employ only specified digital codes listed in \$97.309(a) of this part.
 - (5) The authorized bandwidth is 20 KHz. A RTTY, data or multiplexed emission using a specified digital code listed in §97.309(a) of this part may be transmitted. A RTTY, data or multiplexed emission using an unspecified digital code under the limitations listed in §97.309(b) of this part also may be transmitted.
 - (6) The authorized bandwidth is 100 kHz. A RTTY, data or multiplexed emission using a specified digital code listed in \$97.309(a) of this part or an unspecified digital code under the limitations listed in \$97.309(b) of this part may be transmitted. Spread Spectrum is also permitted.
 - (8) A RTTY or data emission having designators with A, B, C, D, E, F, G, H, J or R as the first symbol; 1, 2, 7, 9 or X as the second symbol; and D or W as the third symbol is also authorized.
 - (9) A station having a control operator holding a Novice or Technician Class operator license may only transmit a CW emission using the international Morse code.
 - (10) A station having a control operator holding a Novice Class operator license or a Technician Class operator license may only transmit a CW emission using the international Morse code or phone emissions J3E and R3E.
 - (11) Phone and image emissions may be transmitted only by stations located in ITU Regions 1 and 3, and by stations located within ITU Region 2 that are west of $130\,^\circ$ West longitude or south of $20\,^\circ$ North latitude.
 - (12) Emission F8E may be transmitted.
 - (13) A data emission using an unspecified digital code under the limitations listed in \$97.309(b) also may be transmitted. The authorized bandwidth is $100~\mathrm{kHz}$.

A new §97.318 should be added:

a) In order to assure effective frequency sharing, all stations employing emissions not capable of being received "by ear" must posses and employ visual means (an audio spectrum or "waterfall" display) capable of clearly displaying any existing signal present within 100% of the authorized bandwidth either side of the center of the stations emissions.

Two new sections should be added to \$97.221

- d) Any automatically controlled station must employ a competent "frequency in use" detector capable of detecting any signal greater than $-140~\mathrm{dBm}$ within the authorized bandwidth plus a 25% guard band on each side of the authorized bandwidth. When any signal greater than $-140~\mathrm{dBm}$ is present within the detector, all transmissions from the automatically controlled station must be inhibited.
- e) the licensee of an automatically controlled station must hold an Amateur Extra class license.
- \$97.221 (c) (2) should be modified to 400 Hz to be consistent with \$97.307 (f) (3) and \$97.307 (f) (4) as proposed.